

Proposed Solar Installation on land off Hallow Lane, Lower Broadheath

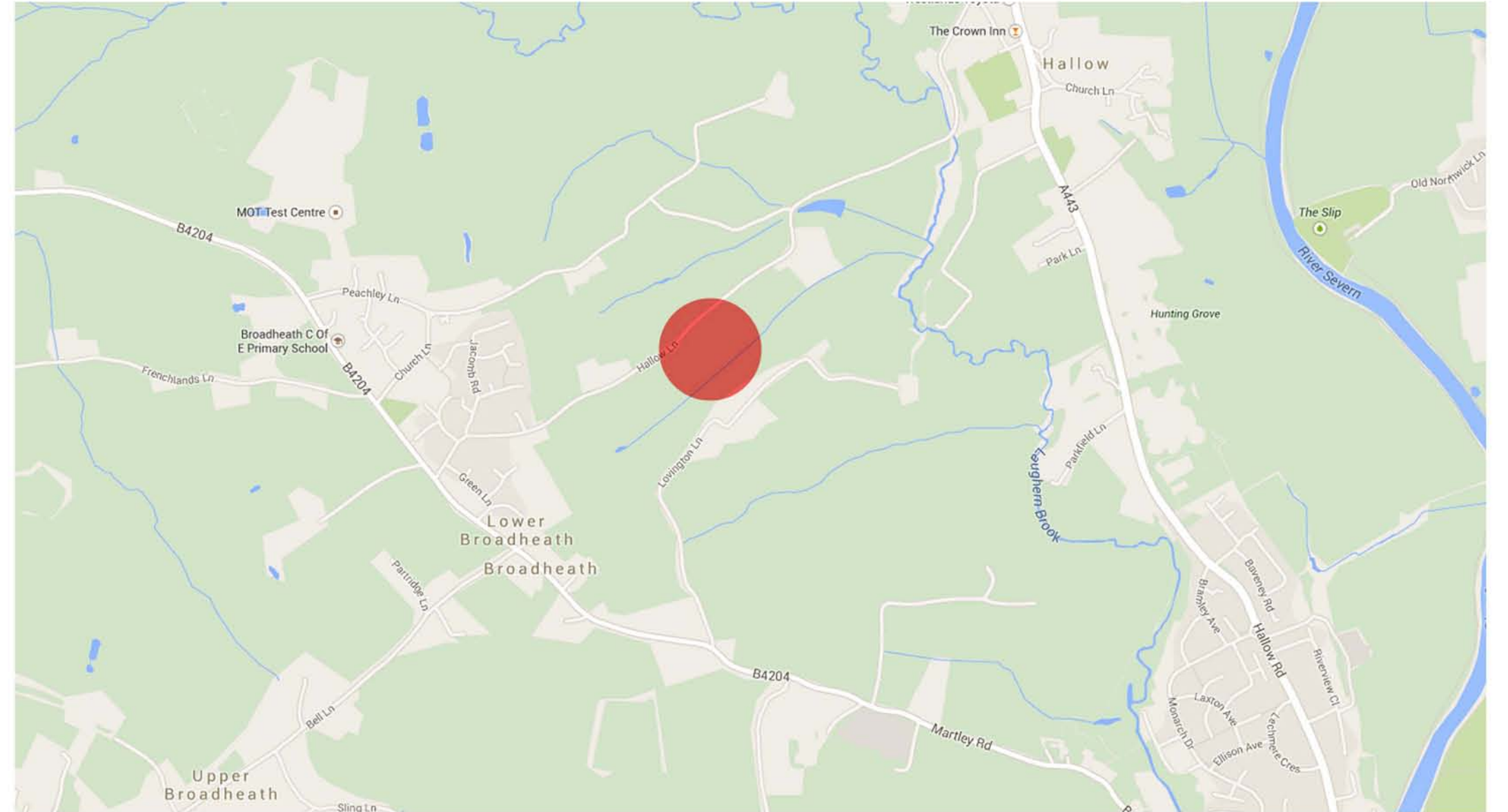
Introduction

BB Architecture & Planning Ltd, Savills Energy and r-Energies Ltd are proposing a 1.26MWp solar installation on 3.8 hectares (9.4 acres) of land off Hallow Lane, Lower Broadheath.

The Lower Broadheath site could power approximately 350 homes* by generating electricity through photovoltaic panels, directly converting sunlight into electricity.

The development would save over 545 tons of harmful CO2 from entering the atmosphere per annum by providing a safe, green renewable energy source.

* Calculation based on DEFRA's 2012 guidelines on reporting emission factors.



The site, located on Hallow road in between Lower Broadheath and Hallow

The Proposed Site

The proposed site for the solar installation is on land lying South of Hallow Lane, mid way between the villages of Lower Broadheath and Hallow.

The site is well screened along Hallow Lane but can be viewed from the public footpath at Lovington Lane.

The land typically slopes away from Hallow Lane where a small valley is formed at the base (south) of the site. Mature trees sporadically line the East and South boundaries, with dense hedgerow to the West and North boundaries.



The extent of the site highlighted in red



1. The site from the North access point



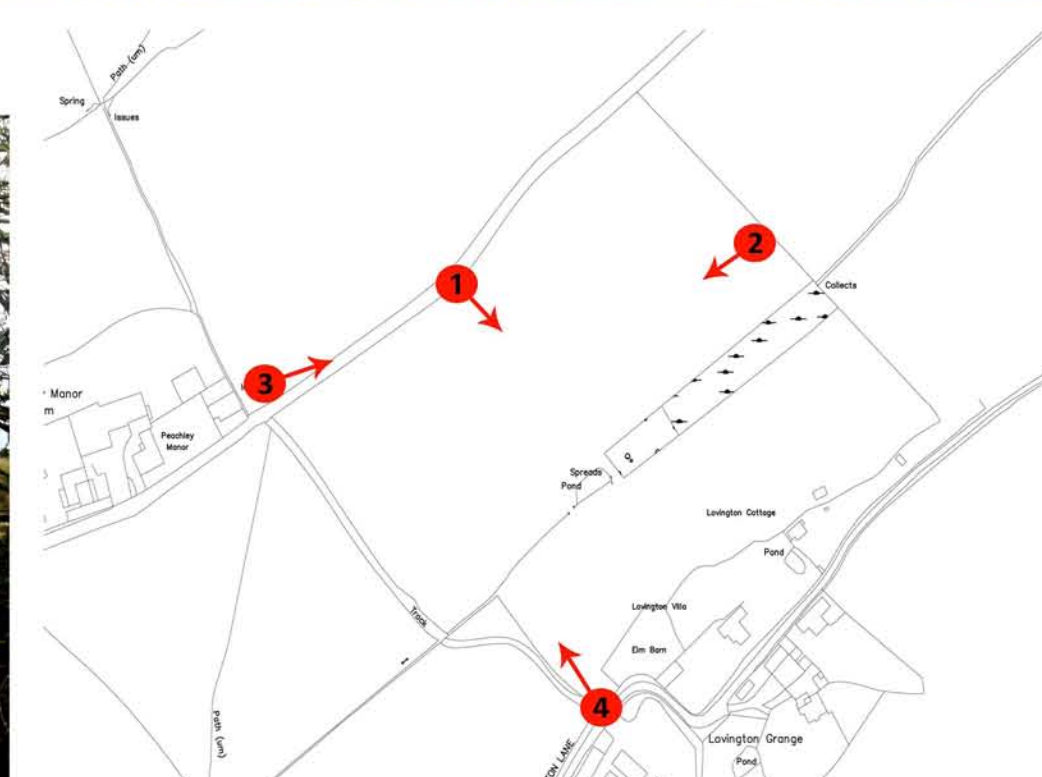
2. The site from the South-East corner



3. The site (right) from Hallow Lane



4. The site in the distance from Lovington Lane



What will it look like?

The proposed development will retain the land for agricultural purposes, to be grazed by sheep and other small livestock.

The solar installation will consist of an array of solar panels sat above the ground on a table structure. Galvanised steel columns will support the panels and be driven into the ground.

There will be a total of 105 tables consisting of 48 photovoltaic panels, arranged in pairs. This will generate a peak output of 1.26MWp from the development.

The maximum height of the panels will be 2.2m above ground level, meaning they will not be visible from Hallow lane. The panels will sit at least 700mm above the ground level, which allows the land throughout to be used by small grazing livestock (sheep, ducks and chickens).

There will be a 2.5m high deer fence installed around the inside of the site, with CCTV cameras in remote locations for security. This fence will be set 5m inside of all of the hedgerow boundaries, providing a wildlife buffer area.

There will be new hedgerow planting along the East and South boundary, filling the gaps and providing habitats for local wildlife.



The wildlife buffer area will be seeded with a grass and wildflower mix which will encourage local biodiversity and wildlife to flourish. Retaining the land for grazing will encourage native species to grow within the site meaning the development will have a positive contribution to local biodiversity.

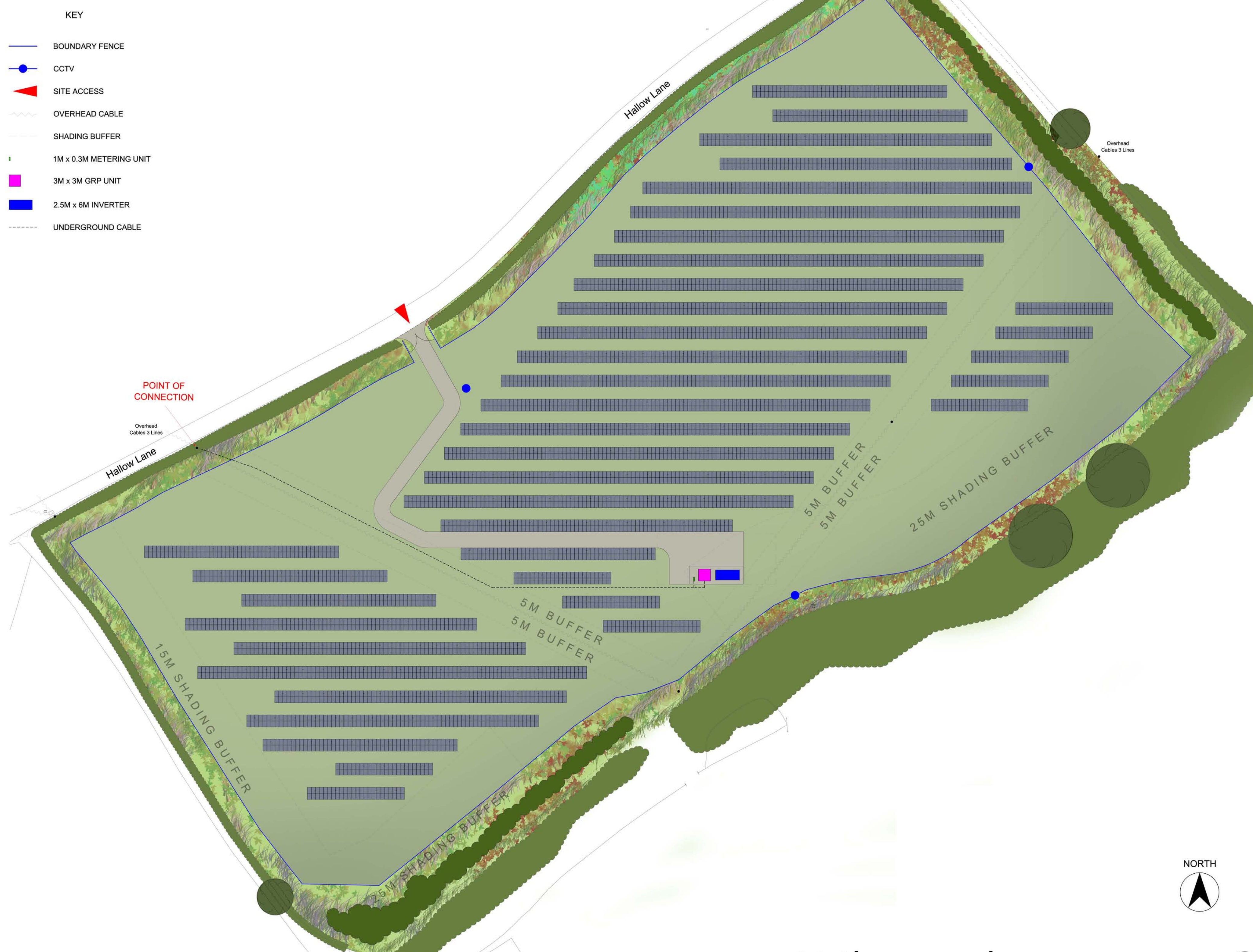
The development will last for 25 years, when generation will cease and the installation be removed from the land. The site will then be restored to its original condition.



The proposed installation from Lovington Lane

What will it look like?

The proposed site plan (nts)



Renewable Energy: Introduction

Renewable energy is anything that is a naturally occurring source of energy that can not be exhausted. Examples of such are biomass, solar, winds, tidal and hydroelectric power... Anything that is not derived from fossil or nuclear!

The UK and Europe: Renewables

The European Commission's Directive on the promotion of renewable energy has set a target of 20% overall EU renewable energy. Each Member State has been allocated individual targets to meet. The UK has a legal obligation to ensure that by 2020, 15% of energy is coming from renewable sources.

The UK is entirely committed to the Renewable Energy Directive. Notwithstanding a noteworthy growth in the production of renewable energy, the UK has not met interim renewable energy targets, which means that it also has the potential to not meet minimum energy generation requirements.

Renewable energy proposals must be supported in order to limit the UK's reliance on consumption of fossil fuels which are carbon rich. Not meeting the renewable energy targets set by Europe could result in infrastructure risk (energy) with potentially costly implications for the UK.

Why Solar Renewable Energy?

Solar PV is the only technology which is scalable according to the opportunity (grid connection etc) and capital availability. These installations are therefore a means by which individuals and small companies (including community groups) can contribute to renewable energy requirements. Solar PV installations are complementary to the existing electricity grid, and do not require major infrastructure works (additional power lines/pylons). They are therefore a diversified source of energy production and make sustainable use of existing infrastructure.

Solar PV is also the only technology where installation is readily reversible, and in the case of land-based installations, compatible with continued agricultural use of the land. The panels will be on the land for a temporary period of (approximately) 25 years. PV installation is, therefore, to be regarded as a temporary use of land.

Why solar power?



Questions?

How does it work?

Solar panels work using photovoltaic (PV) cells that convert sunlight into electricity directly. Made usually from silicon the cells release electrons when exposed to light, which produce a DC (direct current) supply.

The DC supply is then fed into an inverter which converts the current into AC, which is commonly used domestically. A step-up transformer raises the low voltage into high-voltage which is suitable for feed-in to the grid network.

A connection is then made into the national grid network which offsets the electricity generated from fossil or nuclear fuels.

Solar power is limitless, and doesn't necessarily require bright sunlight to operate, it can be generated on cloudy days. The peak generation however occurs during intense light.

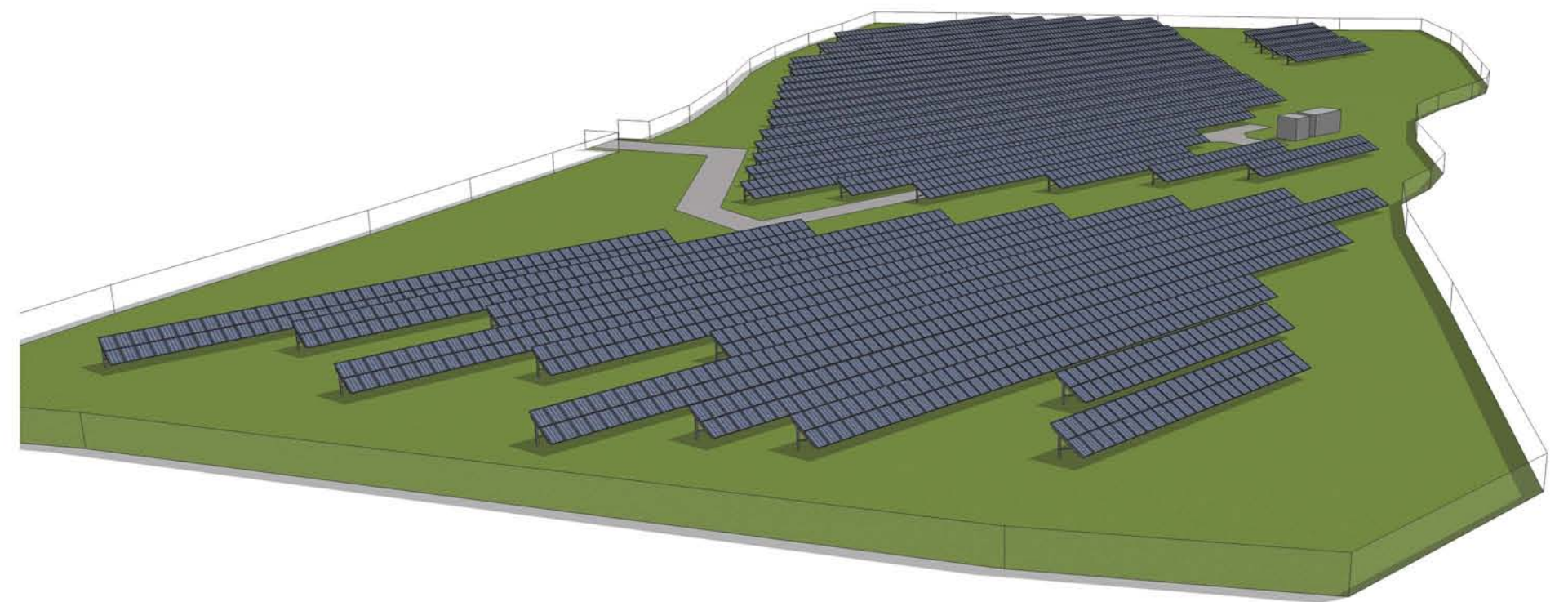
Do the panels create glare problems?

Solar PV panels work to absorb as much light as possible, thus reflecting as little as possible too. There will be minimal reflection from the panels when the sun moves across the sky, however it will have no negative impact to the view of the landscape.

Will there be any visual impact on the landscape from the development?

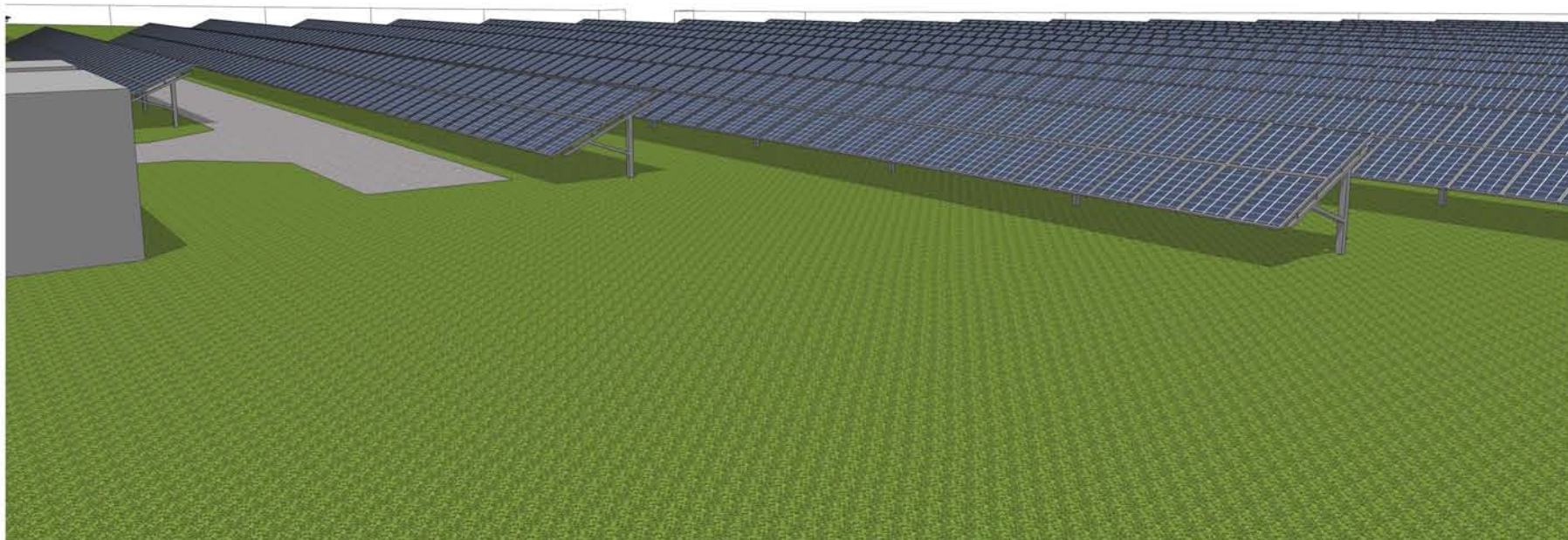
There will be a minimal localised impact to the existing landscape arising from the development. The layout has been designed with this in mind and the height of the panels aswell as additional screening where needed forms part of the design to limit the impact on the landscape.

The development is however temporary, and the existing hedgerow screening on Hallow Lane means that it is only the view from Lovington Lane will be affected.



How long will it take to build?

The construction program will take approximately 10 weeks to build from start to finish. After this, periodic maintenance will be the only manned operation on site.



Will there be traffic problems?

The existing access will be utilised for the construction phase, where it is suitable for HGV deliveries. During the construction phase it is anticipated that there will be 25 deliveries to the site that will take place using the access off Hallow Road.

There is no manner operation of the installation, after construction there will be no further traffic using the site than there is currently other than periodic

What happens afterwards?

After a period of 25 years generation, the installation will be removed and the land will be restored to its existing condition.